DOCUMENT RESUME

ED 329 953 CS 010 513

AUTHOR Anderson, Valerie; Riot, Marsha
TITLE Training Teachers To Foster Active Reading Strategies in Reading Disabled Adolescents.
PUB DATE Nov 90
NOTE 13p.; Paper presented at the Annual Meeting of the National Reading Conference (40th, Miami, FL, November 27-December 1, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Classroom Research; *Learning Disabilities; Reading Comprehension; *Reading Difficulties; Reading Instruction; Reading Research; *Reading Strategies; Reading Teachers; Secondary Education; *Teacher Education; *Teacher Effectiveness; Teacher Improvement; *Teacher Influence; Teacher Role
IDENTIFIERS Direct Instruction; Stanford Diagnostic Reading Test

ABSTRACT

A study tested a teacher training intervention designed to provide experimental teachers with peer support as well as specific principles and techniques for fostering active reading strategies in severely reading disabled adolescents. The study investigated whether and how changes in teaching result in changes in students' reading performance. The intervention involved direct instruction for experimental teachers and their students and was compared with a more conventional direct instructional approach for a control group of students. Participants were nine experimental and seven control group teachers. All teachers and students were drawn from middle schools, junior highs, and high schools. A total of 130 single-page expository texts, covering most content areas, were prepared for teachers to use with their students. The following techniques were used in training the experimental group: research improvement, teacher and student shifts/self-evaluation of videotapings, principles for fostering active reading through reading instruction, and journeyman teachers. All teachers administered three subtests of the Stanford Diagnostic Reading Test to their students as pre- and posttests. An analysis of pre- and posttest experimental and control videotapes showed that experimental teachers made many changes in their teaching that could foster active reading in their students, while control teachers showed little change. (One table of data is included.) (MG)

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Training Teachers to Foster Active Reading Strategies in Reading Disabled Adolescents

Valerie Anderson & Marsha Riot
Center for Applied Cognitive Science
The Ontario Institute for Studies in Education &
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Training Teachers to Foster Active Reading Strategies in Reading Disabled Adolescents

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Modern conceptions of reading as an active process have led to an expanded concept of the teacher's role in reading instruction. It is no longer enough for teaching to focus simply on the text and its meaning. Teachers must also communicate to students the strategic metal activities that go on behind the scenes in successful comprehension. The idea of the teacher as modeler and coach in the use of cognitive strategies is so new that few teachers have been exposed to it and almost none have received practical training in its application. Thus, there is an obvious need for inservice education. This need is particularly acute for teachers of reading disabled adolescents, who have been characterized as passive learners (Torgeson, 1977) instruction. An earlier pilot study (Anderson & Burtis, 1989), in which teachers were trained to work with such students on a one-to-one basis, showed significant teacher changes in fostering more active reading strategies in their students. The present study expands that work to include teachers working with small groups of particularly severely reading disabled students, ages 13 to 17, most of whom had reading levels from grades 1 to 3. Teachers from the pilot study were used as resource (journeymen) teachers to help train and support experimental teachers in the current study.

Purpose

The study tests a teacher training intervention designed to provide experimental teachers with peer support as well as specific principles and techniques for fostering active reading strategies in severely reading disabled adolescents. The study particularly investigates whether and how changes in teaching result in changes in students' reading performance. The intervention involves direct instruction for experimental teachers and their students and is compared with a more conventional direct instructional approach for a control group of students.

Method

Participants. Nine experimental and seven control group teachers took part in the study. All teachers were volunteers and were randomly assigned to the experimental or control group. Each experimental teacher was assigned a "journeyman" teacher for support who had previously been trained in the teaching methodologies. Teachers and students were drawn from middle schools, junior highs, and high schools. The small group reading session was the instructional situation for the study. All teachers were special education teachers (primarily learning disability), so they were able to work with their total classes,

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which were understandably small. Student group size ranged from two to ten.

Student materials. A total of 130 single page expository texts, covering most content areas, were prepared for teachers to use with their students. Texts were drawn and edited (shortened) from a variety of "real text" sources, such as Cricket magazine. Since the intervention places particular emphasis on identifying reading problems and sharing problem solving strategies, all texts were challenging, with readability levels from grades 4 to 7. It was left to teachers and students to decide which of the 130 texts they wished to read during their reading sessions.

Procedure

Pretest. For baseline information on how all teachers usually performed in reading sessions, each teacher was videotaped for a half-hour with his/her students before the study began. Two expository passages, similar in difficulty but different in content were randomly assigned for use in the pretest. In addition, all teachers administered three subtests of the Stanford Diagnostic Reading Test (reading comprehension, phonics, and structural analysis) to their students.

Intervention. Experimental and control treatments were similar in that all teachers were to attempt to directly teach reading comprehension for approximately twenty half-hour sessions, spread over three months, using the provided passages. It was hoped that, under these circumstances, the control group would be a strong one and a rigorous test of the strategy instruction. The treatments differed in that only the experimental teachers received strategy training and peer support.

Training of the experimental teachers involved three afternoon sessions of three hours each, spread over three months, during which time the teachers attempted to apply the training with their students. The controls received no special training. The following Techniques were used in training the experimental group:

1. Research improvement. Teachers were given the study procedures. To encourage teacher/researcher collaborating (Santa, 1988), the procedures were discussed at each training session with problems aired and resolved.

2. Teacher and student shifts/self-evaluation of videotapings. A set of twenty teacher shifts and twelve student shifts was presented to the teachers and gone over during each training session. The shifts represent changes that need to be made in order for more active reading strategies to be fostered in their students, e.g., a shift from focusing on right answers to focusing on how to arrive at answers, from teacher control of sessions to student/teacher collaboration in sessions, from ignoring reading errors to treating errors as problem solving opportunities, etc. While the teacher shifts were directly taught to teachers during

training, the student shifts were not expressly taught to students. Many of the student shifts, however, mirrored the teacher shifts. Teachers were asked to keep an eye out for these shifts in their students as a way of judging the effectiveness of changes in their teaching. Teachers were videotaped throughout the study. At training sessions, the teachers were shown instances of their teaching (with emphasis on positive examples) and asked to evaluate the instances in the light of the shifts. As some shifts were accomplished, new shifts were emphasized during training. teachers were not pushed, but were asked to work on those shifts with which they felt most comfortable and to try new shifts when they felt they had a handle on others. This required quite a lot of judgement o n the part of the teachers, but also gave them quite a bit of choice, within limits. During self-evaluation, teachers also discussed and decided on which of the shifts thy felt they would require the most help and guidance from the trainer and peer teachers. Perhaps the most important advantage of the shifts is that they give teachers a clear picture of the differences between how they usually teach and how they might change.

3. Principals and techniques. Teachers were given a set of principles for fostering active reading through reading instruction, with specific teaching techniques for each principle. Particular attention was given to procedures for making thinking explicit (thinking aloud) and for turning this responsibility over to students. The methodology places great emphasis on collaborative problem solving and on accessing, trying out and evaluating students' existing strategies. Thus, it differs considerably from traditional strategy instruction and more resembles that Pressley (1990) has called transactional strategy instruction. One further technique worth special note was the upgrading of questioning (by both teachers and students) from content specific questions to content-free, thought-provoking questions that stress both the text and reading in general, e.g., What is this about? What are the most important ideas in this? What did you find difficult? How did you try to figure that out? What did you learn from this? Recent research by King (in press) lends support to this approach.

4. Journeyman teachers. As mentioned above, each teacher was assigned a previously trained teacher for peer support. Support teachers attended the training sessions and were available on call for teachers.

Posttest. The posttest for the study provided the final data for comparison. Posttest videotapings were identical to pretest except that each teacher taught the opposite passage to that taught at the outset. A second form of the standardized test was given, with teachers administering the same three subtests as they did at pretest.

Analysis/Results

Standardized test results. An analysis of pre and posttest

standardized test raw scores showed no differences between the experimental and control students in phonics and structural analysis. On both tests about 50% of the students of such low reading abilities over such a short period. The reading comprehension subtest, however, showed that significantly more experimental students made gains, with about 50% of the controls gaining and 80% of the experimentals gaining. The results for both groups speak well for any form of direct instruction in expository text, but also indicate that transactional strategy training may be more effective for text comprehension.

Videotape analysis. Pre and post videotapings of experimental and control teachers' reading sessions were transcribed and coded. Two blind independent raters completed global ratings of the transcriptions based on a subset of the teacher and student shifts. Both teachers and students were rated on seven of these shifts (e.g., treating reading problems openly, focusing on how to arrive at answers, etc.); students only were rated on one shift (involvement in the reading session) and teachers only were rated on seven additional shifts related to how the session was conducted in terms of specific techniques (e.g., focus on the text, skimming, encouraging new learning, etc.). Raters were highly reliable with regard to which teachers gained, lost or stayed the same on the shifts from pre to posttest. They were slightly less reliable in terms of the extent of those gains and losses on only four of the twenty-two shifts measured. Significant gains in favor of the experimental group were shown for all shifts by both raters.

Further Analyses. Alverman, Dillon, and O'Brien (1987) have suggested that decreased teacher talk and increased student talk may be a reasonable measure of student involvement in a reading discussion. this was analyzed and, again, favored the experimental group.

A less successful attempt was made to link standardized test gains with videotape analysis gains. both experimental and control groups were ranked according to their pre to post changes on subtests of the standardized test and on overall shifts. There was little relationship except in the area of phonics where those teachers with the greatest increases in phonics scores showed the greatest shift gains as well. Also, the three very lowest performing control teachers on the shifts analysis showed the greatest standardized test losses.

Conclusion

The results of the study clearly show the advantages of transactional strategy instruction for both teachers and students. The intervention was short (3 months) and successful. the strong shift gains, in particular, indicate that, indeed, changes in teacher behavior are reflected in the reading performance of their students. The gains in student involvement and willingness to acknowledge reading problems and attempt to solve them demonstrate that such instruction can help to diminish some of the passivity

and resistance often seen in adolescent poor readers.

Table 1

Gain Scores (pre to post) on Teacher and Student Shifts

	Shift	Experimental (9) Mean (%)	Experimental (9) S.D.	Control (7) Mean (%)	Control (7) S.D.	t (df=14)	p
1.	T: Treat reading problems openly	65.00	22.36	-12.86	18.45	7.44	.000
	S: Treat reading problems openly	49.44	25.30	- 1.42	6.27	5.27	.000
2.	T: Focus on how to solve problems	61.11	27.59	-10.00	23.27	5.46	.000
	S: Focus on how to solve problems	48.89	26.67	- 3.57	5.56	5.08	.000
3.	T: Provide models of thinking	61.11	30.49	- 6.42	11.07	5.55	.000
	S: Express thinking	45.00	28.28	- 5.71	7.31	4.59	.000
4.	T. Teach question asking	57.22	39.70	-11.43	29.11	3.83	.002
	S: Ask questions	42.78	31.34	- .71	12.05	3.46	.004
5.	T: Ask thought-provoking questions	48.33	22.46	- 5.00	11.55	5.71	.000
	S: Give elaborated answers	26.67	26.81	- 7.88	19.76	2.85	.013
6.	T: Allow student control	48.33	32.02	- 1.43	15.74	3.75	.002
	S: Take teacher role	50.56	33.40	- 2.86	5.67	4.15	.001
7.	T: Focus on group collaboration	48.33	34.00	- 5.71	8.38	4.08	.001
	S: Focus on group collaboration	46.67	35.27	- 5.71	7.32	3.84	.002

Non-mirrored Shifts
Students or Teachers

Table 1 (continued)

Gain Scores (pre to post) on Teacher and Student Shifts

Shift	Experimental (9)		Control (7)		t (df=14)	p
	Mean (%)	S.D.	Mean (%)	S.D.		
8. S: Involvement in session	33.33	27.16	-13.57	16.76	4.00	.001
9. T: Inform students	46.67	22.91	-10.71	25.89	4.62	.000
10. T: Focus on text and learning about reading	60.56	30.35	- 9.29	25.07	4.91	.000
11. T: Set reading goals before reading	80.56	17.58	-14.29	30.00	7.93	.000
12. T: Problem solve during reading	66.67	16.20	0.00	7.07	10.10	.000
13. T: Summarize to check comprehension	55.00	40.70	-12.14	30.26	3.64	.003
14. T: Reflect on reading goals after reading	53.33	40.40	- 5.71	13.05	3.70	.002
15. T: Stress new learning from text	59.44	38.36	-12.14	19.97	4.47	.001

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Abstract

Training Teachers to Foster Active Reading Strategies in Reading Disabled Adolescents

Valerie Anderson & Marsha Roit

This study tests a teacher training intervention designed to provide techniques to teachers for fostering active reading in severely reading disabled adolescents. The intervention is compared with a more conventional direct instructional approach to teaching comprehension of text. Standardized test results showed that significantly more experimental students than controls gained in reading comprehension scores. An analysis of pre and posttest experimental and control videotapes showed that experimental teachers made many changes in their teaching that could foster active reading in their students, while control teachers showed little change.